

Project plan
Internship project



Table of Content

<u>THE COMPANY</u>	3
<u>BACKGROUND & BUSINESS CASE</u>	3
<u>THE ASSIGNMENT: REPORT SYSTEM</u>	4
<u>PURPOSE OF THE ASSIGNMENT</u>	4
<u>PROJECT ANALYSIS</u>	4
<i><u>Integrating the front-end into the current application</u></i>	4
<i><u>CRUD of reports into the database</u></i>	4
<i><u>Generating the reports into a pdf file</u></i>	5
<u>THE ASSIGNMENT: TCO CALCULATOR</u>	6
<u>PURPOSE OF THE ASSIGNMENT</u>	6
<u>PROJECT ANALYSIS</u>	6
<i><u>Making the calculations in the backend</u></i>	6
<i><u>Receiving & sending JSON objects</u></i>	6
<i><u>Making the frontend</u></i>	6
<i><u>Generating pdf's</u></i>	7
<u>THE ASSIGNMENT: METABASE DASHBOARD</u>	8
<u>PURPOSE OF THE ASSIGNMENT</u>	8
<u>PROJECT ANALYSIS</u>	8
<i><u>Layout of the dashboard</u></i>	8
<i><u>Building SQL-queries</u></i>	8
<u>INFORMATION & REPORTING</u>	9
<u>PLANNING</u>	9

The company

The company where this project is being made is Druva CloudRanger located at the CoLab building of the LYIT university campus in Letterkenny, Ireland.

The company is known for their automated backups and disaster recovery of different AWS services like S3, EC2 and DynamoDb.

Background & Business case

For our internship we will build three applications:

-This reporting application will be used by customers of CloudRanger. This way the User Experience will improve tremendously. We will be updating an existing feature of the application.

-The TCO calculator will be used by potential customers of CloudRanger. This way the person will see how much they can save on server costs. We will be creating a new feature for the application.

-The Metabase dashboard will be used by sales executives to help existing users of the CloudRanger application. We will be creating a new application for this.

The assignment: Report system

In this document you will find the project details of our assignment and our plan to complete this assignment.

Purpose of the assignment

The purpose of the assignment is to improve the user experience of customers. With this assignment, users will be able to generate reports based on a template they will create by dragging and dropping components on a standard template depending on what they wish to see. After creating the template, they will be able to save this, select the data, and generate a pdf. This pdf can be downloaded.

Project analysis

The project is divided into three parts:

- Integrating the front-end into the current application
- CRUD of reports into the database
- Generating the reports into a pdf file

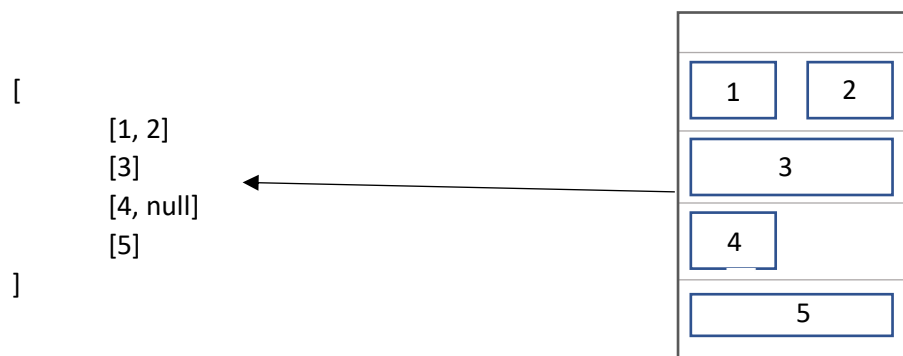
Integrating the front-end into the current application

This assignment will be implemented into the Cloudranger application. In order to not cause any conflict, we will be developing this assignment with a front-end in Angular and a Node.js backend. We will study the lay-out of the current application to make sure the page blends in with the flow of the site. For the graphs we will use 'amcharts' to visualize them.

CRUD of reports into the database

The users can create, save, and delete reports as they wish. They will also be able to save the templates they built to generate future reports. The user will also be able to update saved templates.

We will save these templates using JSON. We will look at the pdf in rows and save each component into each row. The example given below would be:



This way we can easily store the data in the database and regenerate the pdfs when needed.

Generating the reports into a pdf file

We will implement the ability to see a preview of the pdf before downloading, similar to the one in the current application. The user can then choose to download the pdf. We will do this by generating a html template based on the selected components and their positions and afterwards when the user presses 'download' the html template will be converted to a pdf.

The assignment: TCO calculator

In this document you will find the project details of our assignment and our plan to complete this assignment.

Purpose of the assignment

The purpose of the assignment is to improve the user experience of customers. With this assignment, users will be able to calculate the amount they will save by switching their snapshots from 1 storage option to the other. We will have to provide a python backend that will do the calculations and an html/css/javascript frontend that will at first let the users give the necessary variables and afterwards visualize the data in graphs and tables that it receives from the backend for the users.

Project analysis

The project is divided into four parts:

- Making the calculations in the backend
- Receiving & sending JSON objects
- Making the frontend
- Generating pdf's

Making the calculations in the backend

In the future this assignment will be implemented into the cloudranger application. Per request we are using Python to develop the backend. We need to make a backend that will receive a JSON input, calculate the costs and return them. We will use flask to host the script on AWS.

Receiving & sending JSON objects

We need to develop a way that the backend will accept a JSON input and transform it into workable data. We will do this by using the json library. We also will have to transform our calculations into JSON and export this.

Making the frontend

We need to develop a static webpage that will request variables from the user, send it to the backend and afterwards show them a graph based on the calculations it receives back.

Generating pdf's

We will have to develop a function that will generate a pdf when the user clicks on a button on the webpage. On this pdf will be the graph and all other necessary data where the user can see how much they will save when using one particular storage over the other.

The assignment: Metabase Dashboard

In this document you will find the project details of our assignment and our plan to complete this assignment.

Purpose of the assignment

The purpose of the assignment is to help sales executives to quickly look up information about an existing client to aid them with their subscription and possibly upgrade them.

The dashboard will be build fully on MetaBase with no third-party software.

Project analysis

The project is divided into two parts:

- Layout of the dashboard
- Building SQL-queries

Layout of the dashboard

We need to design a simple and clear dashboard where Sales Executives can easily and quickly look up the necessary information they require. For this we will need to determine what we need to show and how we will show it.

Building SQL-queries

To fill the dashboard we need to build the necessary queries that pull the specific data from the database and put these in the necessary graphs and lists.

Information & reporting

We will make weekly reports about the progress we made and send them to our internship coach.

We will have daily meetings with the CEO to update him on our progress.

In the 7th week our internship mentor will do an interim assessment where he will evaluate the overall progress we made during the internship and give us feedback.

In the last week our mentor will do the final assessment .

Planning

Opdracht	Week?
Kennismaking werkplek	Week 1
Startvergadering	Week 1
Voorbereiden PVA	Week 1 - 3
Opdracht TCO Calculator	Week 2
Research <u>Flask</u>	Week 2
Research <u>AmCharts</u>	Week 2
Research <u>Angular CDK</u>	Week 3
Research Templates	Week 3
Research Databases	Week 3
<u>Reportlayout + grafieken</u>	Week 4
Opdracht Metabase dashboard	Week 4-5
Report preview	Week 6
<u>Drag en drop systeem</u>	Week 7 - 10
Templates opslaan in database	Week 9- 10
PDF genereren	Week 7
Report downloaden	Week 8
Documentatie + User guides	Week 11
Buffer	Week 12